MARSHALL STAR
Marshall Space Flight Center
Nov. 30, 2000
'We bring people to space — We bring space to people'

Marshall Center celebrates funding of SLI

Goldin praises Marshall's efforts, issues challenges for future

by Debra Valine

Marshall employees celebrated the Congressional approval of the Space Launch Initiative (SLI) in a special program in Morris Auditorium Tuesday morning.

The ceremony included addresses by NASA Administrator Dan Goldin, U.S. Rep. Bud Cramer of Alabama and Marshall Center Director Art Stephenson.

Angela Colvert, director of U.S. Sen. Jeff Sessions' North Alabama Field Office, and Mark McDaniel of Huntsville, a recent appointee to the NASA Advisory Council, also spoke. U.S. Sen. Richard Shelby of Alabama sent his regrets. He was unable to attend the celebration.

NASA's Fiscal Year 2001 budget received strong support in Congress, and the new Space Launch Initiative was fully funded in accordance with the president's request. Space Launch Initiative funding was approved at $4.5 billion over the next five years with $290 million provided for this fiscal year.

Funding for the Space Launch Initiative will allow NASA — particularly the Marshall Center — to develop future generations of space vehicles that will improve the reliability, reduce the cost and lower the risk of getting to space.

Photo by Emmett Given, NASA/Marshall Space Flight Center

Goldin presents the NASA Distinguished Service Medal to Center Deputy Director Carolyn Griner during the celebration Tuesday. Griner is planning to retire from NASA in December.

Before a capacity crowd in Morris Auditorium, Stephenson thanked Cramer, Sessions and Shelby for their diligent efforts that led to approval of the funding for Space Launch Initiative.

"We are not only supported by our representatives in the House

*See **SLI** on page 4*

NASA revamping Space Station propulsion system

by Rick Smith

The Marshall Center is implement ing NASA's plans for an Interna tional Space Station propulsion system intended to help maintain the research facility's orbit during its 15-year mission in space.

Known collectively as the U.S. Propulsion System, the new system will consist of two principal elements: a "node," or connective module, and at least one propulsion module.

Node 4, a prototype of the Node 1 connector now in orbit, has been tapped to serve as the connective module. The versatile nodes are designed to serve numerous functions aboard the Space Station, providing space for laboratories, crew cabins and other facilities. Node 4 will serve a dual role: as the berthing location for the U.S. propulsion module, and also as the primary docking port for the Space Shuttle.

Once connected to the Space Station, at the forward end of Node 1, Node 4 will be outfitted with one or two detachable propulsion modules. These reusable components — containing fuel tanks and thrusters for boosting the Station into its proper orbit, maintaining attitude control and providing collision avoidance — are designed to be carried back and forth from Earth to orbit by the Space Shuttle for refueling and refurbishment.

The U.S. Propulsion System will provide backup or supplementary propulsion for the Russian service module Zvezda, the station's primary propulsion system.

The Boeing Co. — NASA's primary contractor for Space Station development and construction — will lead the U.S. Propulsion System integration and perform processing of Node 4, according to Linder Metts, U.S. Propulsion System manager at Marshall.

The U.S. Propulsion System is expected to reach orbit aboard the Space Shuttle in June 2004.

The writer, employed by ASRI, supports the Media Relations Department.

Key Personnel Announcement

Rex Geveden has been appointed to the Senior Executive Service as manager of Marshall's Microgravity Science and Applications Department in the Science Directorate.

Geveden

Geveden has held a variety of positions since joining Marshall in 1990, including chief engineer of the Waves in Space Plasma Experiment; project manager for the Optical Transient Detector and Lightning Imaging Sensor; and Spacecraft and Systems manager for Gravity Probe-B. He has also served as an ISO 9001 lead auditor since 1997. Most recently, Geveden served as the program manager for Gravity Probe-B in the Science Directorate.

He holds both a bachelor's degree in engineering physics and a master's degree in physics from Murray State University in Murray, Ky. He has completed numerous executive and management-level training courses and is the recipient of a NASA Certificate of Appreciation and Space Act Award.

NASA mourns Soffen, Welch

Two key NASA employees died last week.

NASA Scientist Dr. Gerald Soffen, who led the Viking science team that performed the first experiments on the surface of the planet Mars and a guiding force in NASA's effort to search for life in the universe, died Nov. 22 at George Washington University Hospital in Washington, D.C. He was 74.

Brian D. Welch, a veteran public affairs officer for the space agency and NASA's director of media services since 1998, died Nov. 24, after suffering a heart attack. He was 42.

Soffen, a close adviser to NASA Administrator Dan Goldin, helped shape NASA's astrobiology program, the study of life in the universe. Soffen also was instrumental in the establishment of the NASA Astrobiology Institute, a virtual organization comprising NASA Centers, universities and research organizations dedicated to studying the origin, evolution, distribution and destiny of life in the universe.

Soffen worked for NASA for more than 30 years.

He was born in Cleveland, Ohio, Feb. 7, 1926. He received his doctorate in biology in 1961 from Princeton University in New Jersey. He earned his master's degree from the University of Southern California and bachelor's degree from the University of California, Los Angeles.

He is survived by his wife, Kazuko, and a sister, Nancy Guy, who lives in California.

Welch, as director of media services, led many of the agency's public outreach efforts. He was responsible for overall agency news operations, NASA Television and the agency's Internet efforts.

Welch was a graduate of Murray State University in Murray, Ky., and a native of Fulton, Ky. His mother, one brother and one sister survive him.

Marshall Obituaries

Morris, Ralph A., 76, of Huntsville, died Nov. 13. He retired from Marshall in 1985 where he worked as an industrial specialist. He is survived by his wife, LouJean Morris.

Herrin, Joe H., 73, of Madison, died Nov. 14. He retired from Marshall in 1987 where he worked as an aerospace engineering technician.

Enfield, Hugh A., 89, of Huntsville, died Nov. 17. He retired from Marshall in 1971 where he worked as an electrical technician.

Cold, flu season

Medication may contribute to workplace drowsiness

Cold and flu season is here again — a good time to caution employees about using over-the-counter cold and flu medications during work hours.

Sometimes, cold remedies and work are not a good mix. The most common side effect of over-the-counter cold and flu medicine is drowsiness, which lowers one's alertness and reaction time.

Ten to 25 percent of people taking these medications report daytime drowsiness. This can be more than just an annoyance.

Approximately 200,000 vehicle accidents are attributed to sleepiness every year. Fatigue is a factor in nearly one-third of truck accidents where the driver is killed.

Taking medications, then coming to work and using machinery or sharp tools, can be dangerous. So when you are ill, what should you do?

In many cases, employers may not want individuals to show up for work with a bad cold or the flu. Not only does the risk of injury increase if medication causes drowsiness, but productivity is likely to be poor, as well.

In addition, the virus may pass to co-workers, causing them to become ill also. Recovery may be delayed if an individual is not getting enough rest to fight the ailment.

But sometimes you must come to work and you need to take medications. If this is the case, remember the following:

- Let your supervisor know
- Follow the recommended dosages
- Do not mix medications
- Read the label
- Don't try new remedies during work hours
- Wash your hands often

Marshall, Redstone teams respond to emergency scenario

by Debra Valine

Early on the morning of Nov. 16, personnel arriving for work at the Redstone Arsenal Airfield off Rideout Road noticed two leaking drums on the back of a truck. They immediately notified Redstone Arsenal and Marshall officials of an environmental spill through the Center's and Redstone's 911 system.

This scenario could easily be real, but it was not. In this case, it was a simulation — designed for the two emergency response agencies to practice procedures they would use if an actual emergency occurred. The exercise also served as a final exam for hazardous materials (HazMat) technicians attending a class taught by the Redstone Arsenal Fire Department.

Redstone's Fire and Emergency Services and Marshall emergency response personnel were notified of the incident and immediately reported to the airfield where they found an unknown substance spill. These individuals are trained to identify the substance and take corrective action.

Two hazardous materials scenarios were simulated during the daylong exercise. For each incident, proper personal protective equipment and decontamination solutions and requirements were selected to contain and clean up the spill. Once the decontamination line was set up and the entry team was dressed in proper protective gear, the containers were capped, the spill cleaned up and the entry team was decontaminated.

Photo by Emmett Given, NASA/Marshall Space Flight Center

The final step in the hazardous materials scenarios required Marshall emergency response personnel and Redstone firefighters to decontaminate the entry team.

"The day of the exercise was cold and rainy," said Cathy Miller of Marshall's Emergency Operations Center, "but emergencies can happen anytime and anyplace. This was an excellent demonstration of two agencies working together effectively."

As with any emergency — either real or simulated — there are lessons to be learned. It is through these exercises that emergency management personnel hone procedures before they are actually needed.

"Marshall holds emergency response exercises twice a year," said Daniel Crock, the emergency operations coordinator with EG&G. "We use the exercises to validate our procedures and emergency response capabilities."

The exercises take two forms: either a tabletop exercise or a full mockup, Crock said. The organizations tested vary from exercise to exercise.

"This was the final exercise for our hazardous materials class," said Troy Vest, Redstone's assistant fire chief. "This was the first class we taught ourselves. We graduated 10 hazardous materials technicians — nine Redstone firefighters and one from Birmingham.

"The Marshall and Redstone emergency response teams worked very well together," Vest said. "Even with the rain, it didn't slow anything down. We have to work in all kinds of weather."

The writer, employed by ASRI, is the Marshall Star editor.

Space Station, Mir pass over Huntsville

Early Wednesday morning, both the International Space Station and the Mir Space Station passed overhead at the same time.

The Space Station, traveling from northwest to southeast, and Mir, traveling from the southwest to northeast, passed over Huntsville at about 6:30 a.m.

This rare occurrence may never happen again because the Mir Space Station is expected to splash into the ocean in approximately three months.

The Marshall Center Newsroom Web site at:

http://www1.msfc.nasa.gov/NEWSROOM/

has a link to J-Track where individuals can check when the Station and Mir are passing over Huntsville. Just put in the zip code and the Web site will tell you the latitude and longitude numbers.

Continued from page 1

and Senate, we are supported locally by Huntsville Mayor Loretta Spencer and Tim Huddleston, adviser to Alabama Gov. Don Siegelman for aerospace affairs," Stephenson said, acknowledging those two distinguished guests in the audience.

"This initiative is the largest initiative undertaken by NASA since the Space Station," added Stephenson.

Speaking to employees in Morris, as well as those watching on Centerwide television, Cramer said, "We knew it would be important for Marshall's future to receive this funding.

"The $290 million for Space Launch Initiative was sorted out in August," Cramer said. "In addition to Space Launch Initiative, $10 million was approved for the Marshall propulsion research lab. Money also has been earmarked for the National Space Science and Technology Center. We had great support from Gov. Siegelman. NASA's budget for the other Centers is as it should be, as well."

Speaking on behalf of Sessions, Colvert read a letter from the senator praising the Space Launch Initiative, the leadership of Goldin and Stephenson and the work of Marshall employees.

Goldin, who flew into Huntsville for the morning event, praised the work of Alabama's Congressional delegation.

"Rep. Cramer and Senators Sessions and Shelby understand how crucial the Marshall Center is to the nation," Goldin said. "Bud Cramer represents space access on the Appropriations Committee. We did not have that representation in the past. The reason we went from zero to $4.5 billion was having somebody with passion on that House Appropriations Committee.

"I think we are about to start the most important program this nation has done since Apollo," Goldin said. "The president, Congress and the American people have asked you to revolutionize space access — not just for NASA, but for the Department of Defense and commercial industry.

"You are outstanding, and I have tremendous confidence in you," Goldin told Marshall employees.

This is just the beginning, Goldin said. Marshall has five years to develop the program that within the next few decades will increase reliability, reduce cost and lower risk of space travel.

"We are still using rocket technology that was developed almost 50 years ago," Goldin said. "We developed the Space Shuttle with technology that is 30 years old. It's time to come up with something new. This is a big deal. You will lead the national team that will make a huge difference in space travel."

Goldin emphasized this will not be easy — and issued systems engineering and soft computing challenges to Marshall employees.

"Start considering systems engineering in the design — don't just go for high specific impulse," Goldin said. "This Center is known for its propulsion efforts, but you must understand the bigger picture and do the systems engineering trades. There is no room for error."

The other challenge was to begin using soft computing. Neural networks mimic the brain, using semi-conductors instead of brain cells. This new technology will allow us to design control systems that can learn and then use that knowledge to handle failures.

"We need to learn about neural networks and soft computing," Goldin said. "Ames Research Center in Mountain View, Calif., is developing programs that use fuzzy logic and genetic algorithms to identify problems and correct them.

"We will be going to Mars in 10 to 20 years if you do what you need to do over the next five years," Goldin said. "To use the Space Station for private research, we have to get the cost low enough to make it feasible. The Department of Defense needs launch on demand. We need faster turnaround times. Right now we can turn the Shuttle around in four or five months. These are the arguments our representatives used to obtain the funding."

All the issues must be answered, he said, while at the same time protecting the public, protecting astronauts and pilots, protecting workers and protecting the vehicle.

"This is the No. 1 development priority for NASA," Goldin said. "There is only one place this can be done — NASA/Marshall. I'll be back to see how you're doing."

The writer, employed by ASRI, is the Marshall Star editor.

Photo by Emmett Given, NASA/Marshall Space Flight Center

Cramer, left, chats with Amelia Gillis of the Engineering Directorate's Avionics Department and Lou Durnya of Marshall's Chief Counsel's office during the Space Launch Initiative celebration Tuesday.

Photo by Terry Leibold, NASA/Marshall Space Flight Center

Guest of honor

Tim Huddleston — adviser on aerospace affairs to Alabama Gov. Don Siegelman — spoke at the Marshall Association luncheon Tuesday. Charles Scales, left, director of Marshall's Equal Opportunity Office and president of the Marshall Association, presented a T-shirt to Huddleston following his presentation.

Students steer giant telescope to assist spacecraft at Jupiter

Students at 25 middle schools and high schools in 13 states are remotely controlling huge radio-telescope dishes in the California desert from their classroom computers this fall and winter.

Their work will aid studies of Jupiter to be made by NASA's Cassini spacecraft as it flies past that planet. The students are using telescopes near Barstow, Calif., at the Goldstone tracking station of the Deep Space Network, which the Jet Propulsion Laboratory in Pasadena, Calif., operates for NASA.

Students' monitoring of natural radio-wave emissions from Jupiter's atmosphere and radiation belts over the next few months will help with the interpretation of measurements that Cassini will take during a few days in early January.

"We know that the radio emission from Jupiter's radiation belts changes over time, and we want to know whether Cassini is looking on a normal day or an unusual day," said Dr. Scott Bolton, a physicist and a Cassini science team member. "The observations the students collect will be our primary gauge to determine the state of the radiation belts."

The students' data will also be used to calibrate Cassini's radio gear for scientific studies to be conducted after the spacecraft reaches its main destination, Saturn, in 2004.

Schools participating in the project range from Sanford Middle School in Opelika, Ala., to University Public School in Detroit, Mich.

Courtney Smith, a junior at Redlands East Valley High School in Redlands, CA, keyed numbers into a classroom computer one recent evening as other students clustered around to watch. Another computer in the room carried a live picture via the Internet of the 112-foot-(34-meter) diameter dish that Smith's commands were steering, about 120 miles (about 200 kilometers) away. She pointed the radio telescope a little to one side of Jupiter, then did a scan across the disc of the planet while other students wrote down measurements of radio-wave intensities the telescope detected at different wavelengths.

The telescope is the Goldstone-Apple Valley Radio Telescope, one of a group of large radio-antenna dishes at the Goldstone tracking station. This antenna was formerly used for communications with NASA spacecraft, the main mission of Deep Space Network stations around the world, but it now is available for schools' use. A second 112-foot (34-meter) dish at Goldstone is also being used by students in the project to support Cassini.

The research helps students understand that visible light is not the only way to see the universe. "In visible light, we see Jupiter's atmosphere, its clouds, its Great Red Spot," said Dr. Michael Klein, manager of the Deep Space Network's science office.

"At some radio frequencies, we see deeper into the atmosphere and measure its temperature. At longer radio wavelengths, the students are measuring emissions from the radiation belt around Jupiter that you can't see with your eyes, but that is being generated by electrons and protons zipping around Jupiter at close to the speed of light."

A list of participating schools and teachers, with contact numbers, can be found at:
ftp://ftp.hq.nasa.gov/pub/pao/pressrel/2000/00-188a.txt

Marshall employees give $504,000 to charities

by Lynnette Madison

Employees of the Marshall Center certainly took the "Care enough to share enough" theme of this year's federal gift-giving program to heart by topping the campaign goal by $69,000 to reach a total gift of $504,000.

It is the first time in history that the Marshall Center has raised more than $500,000.

Marshall Center employees — civil servants, retirees and on-site contractors – exceeded the $435,000 goal during the Combined Federal Campaign to benefit charitable organizations at home and abroad.

The Combined Federal Campaign brings all federal fund-raising efforts under one umbrella through a single campaign conducted once a year on behalf of all authorized charitable organizations.

The campaign benefits United Way agencies of Madison and Marshall counties and the Shoals, the National Voluntary Health Agencies of Alabama, Inc. and local unaffiliated agencies.

"The generous contributions given by Marshall employees will greatly help the less fortunate in our community," said Roslin Hicks, chairwoman of Marshall's Combined Federal Campaign. "We're proud to report that we exceeded our goal of $435,000."

During the six-week campaign, 78 percent of Marshall's civil service employees signed up to participate in the program. "The average gift per participant was more than $245," said Hicks. "Marshall employees really do care about their community."

Marshall employees also have volunteered at Care Assurance System for the Aging and Homebound, Christmas Charities Year-Round Inc., Habitat for Humanity, the Salvation Army and the Hospital Hospitality House.

"We held Community Service Days in October to allow Marshall employees to work at some of the recipient organizations," said Hicks. More than 350 Center employees participated by building wheelchair ramps, doing yard work and housework, restoring used toys, and preparing and serving food.

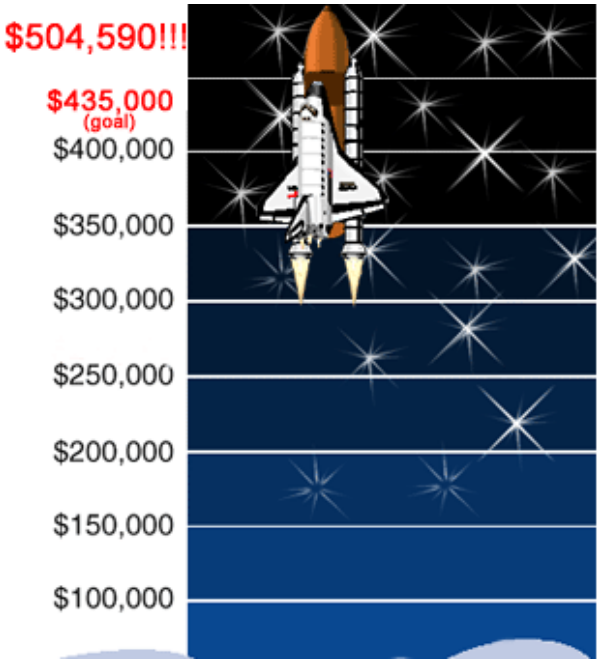
"It gave us an opportunity to learn more about the organizations and families we are helping," Hicks said, "and it was fun."

Also, Gerri Mils of Christmas Charities Year-round Inc. and Mary Lou Kraatz of Alzheimer's Association of North Alabama Chapter informed Marshall employees about their recipient agencies.

Bus tours gave Marshall employees a first-hand look at several area charities — the Alzheimer's Association North Alabama Chapter, Children's Hospital of Alabama, Family Services Center Inc., Harris Home for Children, Hope Place Inc., the Hospital Hospitality House, Operation Home in Decatur, Huntsville Rehabilitation Center, Sterrs Day Care in Decatur and Technology Assistance for Special Customers.

"This was a great year for the campaign," said Hicks. "The Marshall Center always stands out in the Tennessee Valley campaign in the openhanded way we give and show our support."

The writer, employed by ASRI, supports the Media Relations Department.



'Congratulations to all at Marshall. You set a new record. This is great testimony to the value we hold for people — those less fortunate than we are.'

— Center Director Art Stephenson

Marshall organizations contributing 100 percent

The following organizations had 100 percent participation in the Combined Federal Campaign: AD01, AD02, AD03, AD10, AD20, AD31, AD40, AD41, AD42, AD50, CD03, CD40, CD50, CD70, DD01, DE01, ED01, ED03, ED10, ED20, ED30, ED36, ED38, ED40, ED41, FD01, FD03, FD10, FD20, FD30, FD32, FD34, FD42, MP01, MP31, MP41, MP51, MP71, OS01, PS01, QS01, RS01, RS02, RS10, RS30, RS40, RS50, SD10, SD30, SD41, TD01, TD12, TD13, TD60, TD70, VS01, VS20 and WS01.

Center Announcements

Endeavour launch

Space Shuttle Endeavour is set to launch at 9:06 p.m. CST Thursday on mission STS-97. During the nearly 11 day mission, astronauts will deploy the solar wings on the International Space Station, making it the third brightest object in the night sky following the Moon and Venus.

Christmas Tree lighting

The Center's annual Christmas Tree lighting ceremony will be at 4:15 p.m. Dec. 4 in front of Bldg. 4200. Center Director Art Stephenson will make comments. The Center's holiday reception will be from 1-3 p.m. Dec. 14 at the Bldg. 4752 north structure. All on-site personnel are invited to attend.

Retirement applications

Retirement applications for Dec. 31 through Jan. 3 separation dates should be submitted to Edwina Bressette in the Human Resources Department no later than Dec. 8 to assure timely processing and receipt of payments.

Exchange book fair

The NASA Exchange will hold a book fair from 9 a.m.-4 p.m. Tuesday through Friday in Bldg. 4203, room 1201. A wide selection of books are offered at special discounted prices. For more information, call Candy Bailey at 544-7565.

Research mentors

The Education Programs Department has scheduled a workshop Dec. 6 for current and prospective research mentors/advisors. The workshop will provide information about roles, responsibilities, policy changes, timelines and processes related to higher education programs. For more information, call Pamala Heard at 544-0776. Register to attend online at:
http://www1.msfc.nasa.gov/education/registration_form.html

Severe weather closings

The winter weather season is approaching. If inclement weather causes Redstone Arsenal to close or delay its opening, tune in to any of the following stations for the most current information: Radio — WAHR, 99.1 FM; WDRM, 102 FM; WEKR, 1240 AM; WEUP, 1600 AM; WGSV, 1270 AM; WJAB, 90.9 FM; WLRH, 89.3 FM; WRAB, 1380 AM; WRSA 97 FM; WTKI, 1450 AM; WVNN, 770 AM; WWIC, 1050 AM; WZYP, 104.3 FM. Television — WAAY (Ch. 31), WAFF (Ch. 48) or WHNT (Ch. 19). For Marshall Center information, call 544-HELP, Option 5. For current information about Redstone Arsenal delays or closures, call 955-8445.

Wallace State alumni

Wallace State College in Hanceville, Ala., is enrolling members in its newly founded Alumni Association. Membership is open to graduates of Wallace State College, current and former full- or part-time students, faculty and staff, and their spouses. Yearly membership dues are $15 for an individual or $25 per couple. Members receive free admission to all Wallace State home sporting events and are invited to participate in association activities. To request a membership application or for more information, call Arnice Weeks at (256) 352-8163.

Turkey shoot

Redstone Arsenal's Outdoor Recreation is holding a lunchtime Turkey Shoot from 11 a.m.-1 p.m. Dec. 7 and Dec. 14. Cost is $4. A free shuttle is provided from the Sparkman Center to Outdoor Recreation. The first competitor, per round, to hit the bull's-eye wins the grand prize of a turkey or ham.

Vibration course

A short course on practical vibration and shock testing will be held Feb. 20-22 at Wyle Laboratories at 7800 Highway 20. The course will focus on basic understanding of vibration and shock, on dynamic measurements in field and test lab, and on vibration and shock testing. For more information, call (805) 564-1260.

New Year's Eve gala

The Redstone Officers' and Civilians' Club is hosting a New Year's Dinner buffet and dance on Dec. 31 for members and their guests. Tickets are only $29.95 and include prime rib, blackened salmon, continental breakfast, party favors and a champagne toast. Live entertainment is by Aspen Gold. For tickets, call 830-CLUB.

Nut sale

The NASA Exchange holiday nut sale is under way. Sales will be from 9 a.m.-4 p.m., Monday through Friday (excluding holidays) in the Marshall Activities Bldg. 4752 in racquetball court no. 2.

Girl Scout cookies

The Girl Scouts of North Alabama are taking orders for Girl Scout cookies through Dec. 3 for cookies to be delivered Jan. 13-Feb. 17. Cookies are $3 per box. To locate a troop near you, call 1-800-410-8338.

2000 FEHB Health Season

The 2000 Federal Employees Health Benefits (FEHB) Open Season continues through Dec. 11.

Photo Lab retirees

Photo Lab retirees meet the first Tuesday each month at 9:30 a.m. at Shoney's on University Drive and Memorial Parkway. For more information, call Carl Dow at 461-8181.

Correction

In last week's Marshall Star, on page 2, a man was identified as Laj Utraja of Native American Services. The man accepting the award on behalf of Native American Services is Dr. Marvin Carroll.

Employee Ads

Miscellaneous

★ Boxwood & Ebony Staunton chess set w/ blue suede presentation box, leather slides 4", $395. 651-7144
★ Signature 2000 TV w/remote, 25" color, $125; Sanyo VCR, $50; entertainment center, 6'x16"x7', $150. 837-3769
★ GE refrigerator, 19 cu. ft., top freezer w/ icemaker, 5 yrs. old, $225. 882-1833
★ Scuba/skin diving equipment, regulator, fins, buoyancy vest, face masks, PFDS, telescoping paddle. 772-9237
★ Elton John tickets, Montgomery, Ala., Dec. 10, lower level, regular price. 880-7378
★ Ibanex 6-string guitar w/amp, tuner, and instruction accessories, $300. 830-2806
★ Hooked-on-Phonics, Deluxe Edition, never used, $225. 851-6290
★ Zip drive, parallel, $50; Davison education software, (Mathblaster, Algeblaster, Speedreader, etc), 6 for $35. 461-8721
★ Founding Fathers on Horseback wall hanging made w/Brunschwig and Fils fabric. 882-1097
★ Snare drum, $150. 775-1592
★ Santa Train tickets, 4 each, for 3 p.m., Sat., Dec, 2, $32. 880-0159/leave message
★ Twin bed including mattress, box, headboard, frame, $225. 881-5088
★ Solid wood baby dresser and crib, $100. 464-0231
★ GRE, MCAT, job-interview books, $5 each. 722-9483

Vehicles

★ 1990 Toyota pick-up, new tires, 119K miles, $2,500. 881-9426
★ 1997 Trans-Am, T-top, red, new tires, 87K miles, $16,000. 880-3854
★ 1993 Dodge Grand Caravan SE, one-owner, many new parts, service records available, $5,300 obo. 895-9520
★ 1988 Buick Skylark, 144K miles $2,900. 883-9427
★ 1976 Chevy truck, 6 cyl., 3-speed, short step-side bed, new wheels, $1,275 firm. 256-753-2278
★ 2000 Ford Ranger XLT Supercab, a/c, ps, step side, 8K miles, $16,200. 379-4980
★ 1992 Acura Integra, 2-dr. hatchback, red, 5-speed, sunroof, am/fm/cassette, a/c, 107K miles, $4,800 obo. 757-3320
★ 1997 Ford F-250 XLT pickup, 4x4, alloy wheels, 40K miles, towing pkg. w/ gooseneck ball, auto, $16,900. 931-732-4742
★ 1992 Dodge Caravan SE van, low miles, new tires, $5,200. 461-8182
★ 1993 Miata, white, 5-speed, air, ps, A package, 33 mpg, $5,900. 882-1780
★ 1994 Nissan Sentra, 96K miles, 4-door, automatic, am/fm tape, a/c, $3,195 obo. 454-0660
★ 1987 VW Golf GT, 4-door, red, roof rack, trailer hitch, alloy wheels, $1,200. 536-6460

Free

★ Tomato cages. 881-6595

Wanted

★ Plumbers snake, motor operated, minimum 25 feet w/1/4" cable. 883-2757
★ Movie projector, 8mm, buy or rent. 881-1831
★ Massager, electric, handheld. 881-6595

Sports

NASA Bowling League — Interested NASA employees, their dependents and onsite contractors are eligible to join the NASA Bowling on Tuesday nights at 6 p.m. in the Monarch Lanes bowling center on Bob Wallace Avenue. For more information, call Chuck Seal at 544-1120, or Rob Lake at 544-1176.

NASA Ski Week — The 10th annual NASA Ski Week will be hosted at Snowmass, Colo., Jan. 20-27, 2001. For more information, call 1-233-0705.

Bring a toy, get in free! — If you bring a new or slightly used toy to the Alabama Renegades professional women's football game against the Nashville Dream on Saturday, you get in free! For the final game of the exhibition season, the Renegades is joining with the U.S. Marine Corps for its annual Toys for Tots campaign. The game starts at 1:05 p.m. Saturday at Discovery Middle School on Hughes Road in Madison.

Power generated by renewable resources now available in Huntsville

Huntsville is participating in a program where consumers can buy power generated by renewable resources — specifically, wind, solar and landfill waste gas sources.

Consumers choose how much they want to buy. It's as easy as filling in a form on the Web at:

http://www.tva.com/greenpowerswitch

The power costs a little more, but is an incentive for further construction of renewable energy power plants. Hopefully, the technology will improve to the point that it becomes competitive. In the mean time consumers get cleaner air, and no greenhouse carbon dioxide from the wind and solar sources.

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